## SYMBOLS

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|---|---|
| $a, b, c, d, e$ | Arbitrary lengths, in. (mm) |
| $B$ | Width of cross section, in. (mm) |
| $E$ | Modulus of elasticity, psi (N/mm$^2$) |
| $H$ | Depth of beam cross section, in. (mm) |
| $I$ | Moment of inertia, in.$^4$ (mm$^4$) |
| $k, m, n$ | Nondimensional lengths |
| $L$ | Length of beam, in. (mm) |
| $M$ | General symbol for bending moment, lb-in. (N-mm) |
| $M_1, M_2, M_A, M_B$ | Bending moments at specific points, lb-in. (N-mm) |
| $M_0$ | Concentrated moment, lb-in. (N-mm) |
| $q$ | Distributed load, lb/in. (N/mm) |
| $R, R_1, R_2, R_3$ | Reactions at specific supports, lb (N) |
| $S_b$ | Bending stress, psi (N/mm$^2$) |
| $S_y$ | Yield strength of material, psi (N/mm$^2$) |
| $M_{max}$ | Maximum bending moment, lb-in. (N-mm) |
| $W$ | Concentrated load, lb (N) |
| $x, x_1$ | Distances from support, in. (mm) |
| $Y$ | General symbol for deflection, in. (mm) |
| $Y_B$ | Deflection due to bending, in. (mm) |
| $Y_{max}$ | Maximum deflection, in. (mm) |